Name: Date:

مدرسة الاتحاد الوطنية الخاصة - العين
Al Ittihad National Private School - Al Ain

Title: Geometry: **7.5 Solve Radical Equations**

LO: To **Solve radical equations involving square roots and cube roots**

Instructions: Copy the following questions to your notebook and solve them. Once done submit them on Schoology

1. Solve the equation $\sqrt{x+6} - 2 = 0$. Justify each step.

2. Solve the equation $\sqrt{2x} - 1 = 0$.

3. Solve the equation $\sqrt[3]{8x-3} + 3 = 0$.

5. (MP) **Reason** What was done to $4\sqrt[3]{x-1} - 8 = 0$ to obtain $4\sqrt[3]{x-1} = 8$?

6. (MP) **Reason** What was done to $\sqrt[3]{x-1} = 2$ to obtain $x - 1 = 8$?

7. (MP) **Reason** What was done to $x - 1 = 8$ to obtain $x = 9$?

8. (MP) **Reason** Is $x = 9$ the solution to the equation $4\sqrt[3]{x-1} - 8 = 0$? Why or why not?

13. (MP) **Reason** Solve the equation $2\sqrt[3]{x-4} - 6 = 0$. Justify each step.

14. How many solutions does the equation $2\sqrt[3]{x-4} - 6 = 0$ have?

For Problems 18–26, solve the equation.

18. $\sqrt{-x+1} - 6 = 0$

19. $(2x-5)^{\frac{1}{2}} - 7 = 0$

20. $\sqrt{3x-6} + 4 = 0$

LIVEWORKSHEETS